

*margin a double row of prominent bulges or rather tuberculate processes; palpi of a distinctly aberrant type, not shaped at all as in Garypus but approaching to some extent those of the Chthoniidae.*

For further information concerning this sub-family see the references listed under the family heading, all of which concern this sub-family only. So far three species have been described in the genus *Fcaella*, two from Africa (*mirabilis* from Portuguese Guinea; *mucronata* from Natal) and one (*affinis*) from the Seychelles Islands.

(To be continued)

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### **A New Species of the Genus *Buenoa* (Hemiptera, Notonectidae).**

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During August of 1922, under the auspices of the Entomological Survey of Minnesota, Doctor Harry Knight, Mr. Wm. E. Hoffmann and the writer made a 1200-mile collecting trip through Minnesota. Special attention was given to the aquatic insects of this region of innumerable lakes and ponds. A portion of the journey was along the north shore of Lake Superior to Grand Marias. North of Grand Marias and some fifteen miles from the lake, we camped by a large beaver pond. This pond occupies a basin hemmed in against a high hill by a meandering glacial eskar. This high and well-defined ridge, after running for some distance parallel with the hill, makes a wide crescentic curve to the hill, thus disputing the right of way with the drainage between hill and eskar. A stream had cut a narrow gap of a few rods through the eskar, and at this strategic place, the incomparable rodent engineers have built a high dam, forming a pond that is at least eight feet deep in spots and covers several acres.

Here and there stand stark trees, killed when the water encompassed them, and piles of drift brush lodged in time of freshet. The water is stained therefore with the amber color characteristic of such places. This first dip of the writer's net brought up two specimens of a beautiful new species of back-

swimmer. Diligent collecting by Mr. Hoffmann and the writer secured a splendid series of this most striking and distinct North American *Buena*.

The apparent isolation of this insect and our failure to collect it elsewhere in our rather careful search for aquatic Hemiptera, is worthy of note. Like the others of its genus, it swims submerged, and its body is richly supplied with the blood-red oxyhaemoglobin-bearing cells. It, like the smaller *B. elegans* Fieb., swims in the shallow, protected waters along shore, differing thus from *B. margaritacca*, which prefers the deeper water.

***Buena limnocastoris* species new.**

*Size*: Length, 6.25 mm. to 7 mm.; width across the eyes in largest female, 1.3 mm.; greatest body width, 2 mm. The males are more slender, the head being fully as wide as greatest body width, the average being about 1.2 mm. for head width.

*Color*: The living insects are very striking in their pattern of black and white, the limbs and underside of body deep mahogany. The prothorax is whitish with a smoky to black patch on either side above the margin; scutellum colorless; elytra whitish with shining black band covering humeral angle and extending along the anterior margin of wing for about one-third of its length, another large, triangular, black spot at tip of corium, extending across the wing; propleura of prothorax black, opaque; parapleural plates black, save a yellow patch along ventral margin; longitudinal dark area on sides of thorax visible through the transparent wings; the abdominal segments immediately beneath the corial black patches, black; abdominal venter blackish in dead specimens; median longitudinal black stripe on beak, all the tibiae and hind femora. In life the rich red of the oxyhaemoglobin within the abdomen, shows through the sides of abdomen and makes the venter dark mahogany.

*Shape*: The eyes are protuberant and prothorax narrow, markedly narrower than the head in both sexes, and impressed with two longitudinal depressions more or less distinct. The pronotum of the male inflated, and in dead specimens the disc stands up as a transparent, elongate, heart-shaped area, divided longitudinally by the median carina. Scutellum reduced, narrow, elevated, but depressed near its front margin by a deep transverse groove.

*Structural Peculiarities*: Tylus prominent, more prominent in male than female. Synthlipsis narrower in male than in female in which it is less than half the vertex. In cephalic view the inner margin of eyes parallel.

Pronotum faintly tricarinate in the female, more distinct in the male; in lateral view the pronotum of the male is strongly arched and inflated, the lateral margins prominent and distinctly ledged, the lateral areas beneath the ledge depressed. Scutellum reduced in both sexes, relatively larger in female than in male; in the female, scutellum two-thirds length of pronotum and a little less than one-third length of elytral suture; in the male scutellum is not more than one-half length of pronotum and less than one-third length of elytral suture. Claval orifice just behind tip of scutellum, two-thirds the length of scutellum in both sexes. Surface of elytra rastrate and pebbled, especially in the black areas; the dark sides of pronotum above the ledge sparsely rastrate, also the upper half of parapleural plates.

Front femora greatly swollen in male and somewhat thickened in female. Front tibiae flattened in both sexes, broader at base in male and bent along its long axis; tarsi two-segmented in both sexes. Middle femora slender, angulate; tibiae flattened, not quite attaining distal end of trochanter when limb is flexed; tarsi two-segmented, segment one not quite a third longer than two; tarsal claws about one-third length of distal tarsal segment in male, claws more developed in female, about one-half distal segment; front and middle limbs equipped with strong, mobile setae. Hind limbs flattened and fringed, tibia one-seventh shorter than the femur; hind tarsi two-segmented, segments subequal in length, tarsus about one-fifth shorter than hind tibia.

Described from a long series taken near Maple Hill, Cook County, Minnesota. *Holotype* in University of Minnesota collection, *allotype* in University of Kansas collection, *paratypes* in University of Minnesota, U. S. National Museum and following private collections: W. E. Hoffmann, J. R. de la Torre Bueno, R. F. Hussey, Dr. Carl Drake, Dr. H. M. Parshley and that of the writer.

NOTES: This species is quite unrelated to the *Bucnoa margaritacea-platycnemis* series, which have orange in their coloring and are very compactly formed creatures. Furthermore, each of the above species has a head that fits firmly against the short pronotum, a large scutellum as long as the pronotum at least, and very broad; and in them, the elytral orifice is less than one-third the length of the scutellum, which is more than one-half the elytral suture.

The new species is much more nearly related to what we know as *B. elegans* Fieb. This latter species I have taken in large numbers in what is known as "Stubbs Pond," near Law-

rence, Kansas. *B. elegans* Fieb. is considerably smaller, however, and structurally distinct. The new species has, in general, the same coloring—black and white. The humeral and corial black spots are the same. The black stripe on sides of thorax in *B. elegans* Fieb. is more prominent, but in all of my specimens, the pronotal lateral spots are lacking. I have specimens of this smaller species which lack all black markings.

In structure, the two species are quite distinct; the eyes of *B. elegans* are closer together; in males the synthlipsis very narrow, eyes almost touching; the pronotum is not arched and scutellum is much larger. In the male the scutellum is three-fourths as long as pronotum, more than twice as long as elytral orifice and one-third as long as elytral suture; in the female the scutellum is relatively larger, being as long as pronotum. In side view the difference between these two species is especially well marked in the males. *B. limnocastoris* has front femora more strongly incrassate and pronotum arched. Furthermore, the male genitalia show them to be distinct.

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Notes on Two Species of Lepidoptera Described by Guenée  
(Noctuidae, Geometridae).

*Acronycta clarescens* Gn.

1852, Gn., Spec. Gén., V, Noct., I, 54, *Acronycta*.

M. C. Oberthür, *Études de Lépidoptérologie Comparée*, XVII, 21, states: "L'étiquette écrite par Guenée, auteur toujours extrêmement sincère, est ainsi conçue: 'Je ne me rapelle pas si cet individu a servi à ma description, mais j'ai tout lieu de le croire.'" On plate DV, fig. 4217 this specimen is shown. In view of the fact that M. Guenée appeared to be in doubt whether this specimen served for his description or not and the fact that there is a specimen labeled "type" in the British Museum, which corresponds to *A. clarescens* in the sense used by Hampson and later authors and where the Doubleday specimens described by Guenée should be, the present authors are led to disagree with Dr. McDunnough, who placed *pruni* Harris synonymous, in a recent paper—(1922 Ent. News., xxxiii, 228).

With doubt cast upon the authenticity of M. Oberthür's type by M. Guenée himself, there seems to be no other course available than to accept the type in the British Museum as representing the species. The synonymy in the Check List (B. & McD., 1917) will stand unaltered.

*Xanthorhoe defensaria* Gn.

1851, Gn., Spec. Gén., X., 411, *Coremia*.

1920, Oberthür, *Étud. Lepid. Comp.*, XVII, 23, (pl. DVII, f. 4240, Fig. type?, *convallaria?*, *guenécata?*) *Coremia*.

1922, McD., *Ent. News.*, XXXIII, 229, *Coremia*.

Dr. McDunnough, evidently not seeing the text of the *Études*, states that M. Oberthür's figure cannot represent the type of *defensaria* and "represents a specimen of *Perizoma polygrammata*, Hbst. or one of its close allies."

The species figured by M. Oberthür is probably *Perizoma custodiata*, Gn.=*guenécata* Pack.

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